

## REMARKS

### **I. Introduction**

With the cancellation herein without prejudice of claims 13 and 14 and the addition of claims 15 to 20, claims 9 to 12 and 15 to 20 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

Applicants respectfully request that the Examiner acknowledge the claim for foreign priority and the indicate that all copies of certified copies of the priority documents have been received. In this regard, a claim of priority to Application No. 199 36 713.2, filed in the Federal Republic of Germany on August 6, 1999, was made, *inter alia*, in the “Combined Declaration and Power of Attorney for Patent Application,” filed on June 14, 2002. At least the “Notification of Missing Requirements Under 35 U.S.C. 371 in the United States Designated/Elected Office (DO/EO/US),” dated April 16, 2002, indicates that the Office has received a copy of the priority document.

Applicants respectfully request that the Examiner consider the Information Disclosure Statement, PTO-1449 paper and cited references filed on February 6, 2002 and return an initialed copy of the PTO-1449 paper with the next Office communication.

### **II. Rejection of Claims 9 and 11 Under 35 U.S.C. § 102(a)**

Claims 9 and 11 were rejected under 35 U.S.C. § 102(a) as anticipated by U.S. Patent No. 4,845,399 (“Yasuda et al.”). Applicants respectfully submit that Yasuda et al. do not anticipate claims 9 and 11 for the following reasons.

Claim 9 relates to a piezoceramic actuator. Claim 9 recites that the piezoceramic actuator includes a monolithic stack of thin piezoceramic films and internal electrodes arranged between the films. Claim 9 further recites that the internal electrodes are electrically interconnected on outer sides of the stack to form at least two electrode groups electrically separated from one another, the internal electrodes each having a rail-like extension in a region of the outer side of the stack. Claim 9 has been amended herein without prejudice to recite that at least one of metal knitted structures, metal meshes and metal foam electrically interconnect exposed edges of each rail-like extension at a distance from the outer sides of the stack. No new matter has been added. See the Specification, for example, at p. 3,

lines 39 to 40 and p. 4, lines 27 to 28. Claim 9 further recites that each rail-like extension has one of electrochemically deposited nickel-alloy and nickel.

Yasuda et al. purportedly relate to a laminated piezoelectric transducer. The transducer is stated to include piezoelectric plates 32, inner electrodes 32, metal extrusions 33, side lead 34, insulating plates 35, dummy plates 1, metal plates 36 and outer leads 37. See Figure 10 and col. 6, lines 17 to 25. The outer leads 37 are stated to be electrically connected to the metal plates 36. See col. 6, lines 24 to 25. The metal plates 36 are stated to be flexible so that an external force on the outer leads 37 is absorbed by flexing of these plates. See col. 7, lines 30 to 33.

Yasuda et al. do not disclose, or even suggest, that at least one of metal knitted structures, metal meshes and metal foam electrically interconnect exposed edges of each rail-like extension at a distance from the outer sides of the stack, as recited in amended claim 9. Yasuda et al. do not teach outer leads made from one of metal knitted structures, metal meshes and metal foam. In this regard p. 3, lines 5 to 12 of the Specification states as follows:

The rails or tabs that extend the internal electrodes outside the piezoceramic stack thus form a noncontinuously structured, strip-shaped base metallization, these rails or tabs being little stressed, if at all, by the mechanical motions of the adjacent piezoceramic films during operation of the actuator. Because these rails or tabs are electrically interconnected in mechanically flexible fashion, a particularly strong actuator can be achieved.

In contrast, rather than using a metal knitted structure, metal mesh or metal foam that exhibits flexibility, Yasuda et al. state that the metal plates 36 absorb external forces by flexing. Therefore, Yasuda et al. do not disclose all of the limitations of amended claim 9.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of Calif.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). As more fully set forth above, it is respectfully submitted that Yasuda et al. do not disclose, or even suggest, that at least one of metal knitted structures, metal meshes and metal foam electrically interconnect exposed edges of each rail-

like extension at a distance from outer sides of a stack, as recited in amended claim 9. Therefore, it is respectfully submitted that Yasuda et al. do not anticipate claim 9.

As for claim 11, which depends from claim 9 and therefore includes all of the limitations of claim 9, it is respectfully submitted that Yasuda et al. do not anticipate dependent claim 11 for at least the same reasons given above in support of the patentability of claim 9.

For all the foregoing reasons, Applicants respectfully request withdrawal of this rejection.

### **III. Allowable Subject Matter**

Applicants note with appreciation the indication of allowable subject matter contained in claims 10 and 12. In this regard, the Examiner will note that each of claims 10 and 12 has been rewritten herein in independent form to include all of the limitations of its respective base claim and any intervening claims. It is therefore respectfully submitted that claims 10 and 12 are in condition for immediate allowance.

### **IV. New Claims**

New claims 15 to 20 have been added herein. It is respectfully submitted that new claims 15 to 20 do not add any new matter and are fully supported by the present application, including the Specification. Because claims 15 and 16 ultimately depend from claim 9, it is respectfully submitted that claims 15 and 16 are patentable over the reference relied upon for at least the same reasons submitted above in support of the patentability of claim 9.

As regards claims 17 to 19, it is respectfully submitted that claims 17 to 19 are patentable over the reference relied upon for at least the reason that Yasuda et al. do not disclose, or even suggest, electrically conductive films having a corrugated structure interconnecting exposed edges of each rail-like extension at a distance from outer sides of a stack, as recited in claim 17, from which claims 18 and 19 ultimately depends.

As regards claim 20, it is respectfully submitted that claim 20 is patentable over the reference relied upon for at least the reason that Yasuda et al. do not disclose, or even suggest, strip-shaped extensions of a nickel-alloy.

V. **Conclusion**

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

KENYON & KENYON

Dated: July 21, 2004 By:

Richard L. Mayer  
Reg. No. 22,490  
One Broadway  
New York, New York 10004  
(212) 425-7200  
**CUSTOMER NO. 26646**

  
R. L. Mayer  
Reg. No. 22,490